Ofgem

Email to: [NetworkAccessReform@ofgem.gov.uk](mailto:NetworkAccessReform@ofgem.gov.uk)

18th September 2018

### Dear Jon,

EDF Energy is one of the UK’s largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, storage, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including residential and business users.

We agree that network access and charging arrangements are an important work area that requires consideration given the rapidly changing nature of the energy system including end consumer demand. We agree that the main focus of the review should be on access and charging arrangements for distribution networks. This is where the largest changes are likely to be seen and provides the greatest opportunities to facilitate a smooth transition to a smart, flexible and decarbonised energy system, while at the same time ensuring network reinforcement costs are efficient.

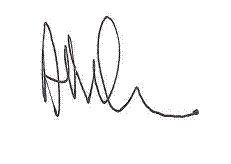
Specifically:

* We agree that Ofgem should review, through a Significant Code Review (SCR), distribution access and charging arrangements encompassing the DUoS methodology and the connection charging boundary.
* In doing so it will be important to ensure that any material changes have sufficient lead time to enable the market to respond and for suppliers to be able to take into account in their offers to customers.
* Reforms need to strike a careful trade off between the need for effective pricing signals to minimise overall system costs, and other policy objectives such as protecting the interests of vulnerable customers and supporting the need to decarbonise the energy system, including electrification of transport.
* We support Ofgem’s narrow SCR approach which would prioritise the key issues.
* We do not support Ofgem’s proposal for an ESO-led review of BSUoS to confirm if it can be charged for more cost reflectively. We are concerned that this proposal is not consistent with Ofgem’s planned timescales to make decisions on the Targeted Charging Review (around BSUoS embedded benefit or generally the charging of residual costs on demand) and risks delaying reforms. If a review proceeds it needs a clear scope and timescale aligned with other potential reforms.

The following pages provide responses to the consultation questions. I confirm that this letter and its attachment may be published on your website. If you have any questions, please contact Paul Mott on 07752 987992, or me on 0208 1861460.

Yours sincerely,

Mark Cox,





Head of Trading and Transmission Arrangements,

EDF Energy

**Getting more out of our electricity networks by reforming access and forward-looking charging arrangements – EDF Energy’s replies to questions**

*Question 1: Do you agree with the case for change as set out in chapter 2? Please give reasons for your response, and include evidence to support this where possible.*

In short, yes - the case for change is made. EDF Energy agrees that early action to enable growth in demand, from new domestic LCTs as well as significant growth in DG and DNO-connected storage, will be much more likely to lead to least-cost, and secure, solutions, than the alternative of planning and taking no action until the growth is well underway. There is clearly a lead time to plan the solutions, and a further lead time to implementation. We also agree that it is right to ensure that access is efficiently allocated, and that charging signals across electricity networks, in combination with the approach to connection depth, are appropriate, with fair and cost-reflective treatment at different voltage levels.

*Question 2: Do you agree with our proposal that access rights should be reviewed, with the aim to improve their definition and choice? Please provide reasons for your response and, where possible, evidence to support your views.*

We do. There are a number of issues here. Demand-side network access rights in particular need to be well-defined, so that the network can cope with users’ real needs whilst avoiding over-investment or inefficient network utilisation. Assumptions about typical customers, such as economy 7 or unrestricted domestic, will increasingly no longer be valid with the growth in electric vehicles or behind the meter generation. Reviewing the access rights can enable growth in demand due to more deployment of LCTs and DG and storage (domestic and otherwise), while allowing for the efficient level of network reinforcement. It is also worthwhile reviewing the connection depth for distributed generators, which is currently not as shallow as for transmission-connected generators, to see if there can be more consistency in the treatment of generators at different voltage levels. We regard access rights for the latter, reviewed a number of times over the years, as generally appropriate and working well.

*Question 3: Specifically, do you have views on whether options should be developed in the following areas as part of a review? Please give reasons for your response, and where possible, please provide evidence to support your views:*

* 1. *Establishing a clear access limit for small users, with greater choice of options (as considered under b) and c) below) above a core threshold – do you agree with our proposal in paragraphs 3.5-3.10 that this should be considered? Do you have views on how a core threshold could be set?*

Yes, we agree that the core access concept for small users should be developed. The clarity that it can add to domestic site capacity will enable planners to plan more efficiently, avoiding or delaying DNO reinforcement. Together with possible changes to DUoS charging signals, security of supply can thus be maintained at considerably lower cost than, absent such reforms, simply reinforcing local power networks. There may, anyway, be limits on the speed at which local power networks can be reinforced, if that approach were taken as the sole way to cope with demand growth due to uptake of LCTs. We agree that this part of the review is best taken forward via an SCR given the wider policy considerations. The setting of the core threshold could entail trials, or simply collecting high resolution meter data plus appliance disposition for a number of domiciles, to see how a given level of core access would affect them. Experience in other countries may well also be useful.

* 1. *Firm/non-firm and time-profiled access – do you agree with our proposal outlined in paragraphs 3.15-3.21 that these options should be developed?*

We agree that the definition of non-firm access at distribution, and curtailment compensation could be reviewed (perhaps even with a limit on uncompensated curtailment per year, per site), to ensure that the position of distributed generators is clearer.

We agree that it is worth considering the utility of time-limited, or time-profiled, access rights, including assessing whether there is demand for these (Short term TEC for transmission connected generators has had almost no take-up; as Baringa put it, little use has been made of provisions to exchange TEC (there is effectively no secondary market)).

* 1. *Duration and depth of access, discussed in paragraph 3.22-3.32 - would these options be feasible and beneficial ?*

It is hard to say if these options would be beneficial, without an assessment of demand and likely take-up, as part of the review. If one considers the issue of generators nearing the end of their life, they already have existing long-term rights. However, if they were able to make an increase to their maximum export, then short term access rights could have relevance.

We agree with the following statement in the document : “*Fixed-term access rights may increase risk for some users. We consider that fixed term rights would have more value if users could be confident of being able to procure additional access rights, if and when required”*

* 1. *Should options be developed at transmission or distribution in particular, or are both equally important ?*
* We see the focus as being distribution, due to deeper connection charges for new distributed generators (DG) than for new grid-connected generation, and the need for more cost-reflective network charges for DG that are more consistent with the charges faced by grid-connected generators. These changes could help create a fairer and more consistent experience as between grid-connected generators and DG in all aspects of charging.

*Question 4: Do you agree with the key links between access and charging we have identified in table 1? Why or why not? Do you think there are other key links we have not identified? Where possible, please provide evidence to support your views.*

Table 1 generally makes an interesting point about short term access, where it suggests that shorter-term rights, which may only be granted if there is spare capacity, should not be priced on the same basis as normal access i.e. not on an estimation via ICRP of the long run marginal cost (LRMC) of providing access. If this makes for a lower price, because short term access is only granted where there is slack, then this could help solve the issue that quotations for short term access for generators are so expensive that the product at transmission level, has been rarely used since its introduction.

For users (currently almost all) who choose long-term access rights, we agree with securitisation prior to commissioning, to avoid a stranded network asset being built, but we do not agree with securitisation after commissioning, when there is a real generation asset in place.

*Question 5: Do you agree with our proposal that targeted areas of allocation of access should be reviewed? Please give any specific views on the areas below, together with reasons for your response. Where possible, please provide evidence to support your views:*

1. *Improved queue management as the priority area for improving initial allocation of access, as outlined in paragraphs 3.41-3.44?*

We agree that improved queue management would be a desirable outcome to aim for. We believe that Connect and Manage has worked well at transmission level to facilitate and speed up the connection of renewable generators.

*b) Not to consider the potential role of auctions for initial allocation of access as part of a review at this time, as discussed in paragraph 3.44?*

We agree that auctions would be complex to design/administer, even on a targeted basis. Achieving liquidity at the time the auction was held would be an issue. The complexity of participating in an auction would probably create a barrier to new entrants. We also agree that universal auctions would create uncertainty.

*c) To review the areas outlined in paragraphs 3.45-3.48 to support re-allocation of access?*

The three areas suggested in the consultation are as below, with our comments :

*new access conditions : ‘use it or lose it’ or ‘use it or sell it’* – there was evidence from the DNOs in the RAFLC task force meetings that there is capacity hoarding of DNO exit capacity which is either overbooked, or held in relation to developments that never take place. This is worth looking at, but with care : there may be a development that is real, yet which has been delayed, so that the extra access rights held don’t represent “hogging”. Such developments might be able to be identified through the developer providing evidence of real financial commitment and progress. Subject to this, yes, such provisions could increase the utilisation of existing capacity.

*new mechanisms to enable distribution-connected users with non-firm access to trade with others to reduce their curtailment –* this concept seems challenging in practice, that a DNO user that has been told by the DNO that it is due to be constrained down, could within a workable timeframe identify and pay another party of the same sort (i.e. another generator in the correct local area) to be constrained down instead; or persuade a different party to do the opposite – e.g. identify and contract for a demand turn-up from a local demand facility where appropriate, and provide proof to the DNO, with or without DNO involvement as the despatch agent.

It is likely to need some form of transparent centralised platform to facilitate this arrangement. As the Open Networks project develops it may be possible to build on some of the thinking around DSO roles and system service procurement that might help to facilitate this.

*exchange of access rights between users* – this is already, as the consultation document notes, able to be undertaken by transmission-connected generators, via an application to what is now the ESO to calculate for the potential TEC-swappers at two given locations, an exchange rate for their TEC. In practice, parties don’t actually do this. At DNO level, this sounds like a potential outcome of “use it or sell it” concept, for those holding unused DNO access rights. In theory a party could buy rights it doesn’t need for a non-existent nominal future factory in a location where it judges that houses may be developed, and then sell these at profit to a house builder if the houses would otherwise have been delayed due to the DNO not having sufficient capacity due to the phantom reservation. If the DNO built capacity as a result of the speculator’s action, and if the speculator faces a loss if the housing development or other development doesn’t arise, one could argue that the speculator is creating a useful forward investment signal. On the whole, use it or lose it may be better if false connection reservation activity is regarded as undesirable. This will need careful thought.

*Question 6: Do you agree that a comprehensive review of forward-looking DUoS charging methodologies, as outlined in paragraphs 4.3-4.7, should be undertaken? Please provide reasons for your response and, where possible, evidence to support your position.*

* We support the proposal for a fundamental review of DUoS; if the deeper connection charges faced by DG are to be addressed, to create a more consistent experience with that for new grid-connected generation, there will be even more benefits from more cost-reflective GDUoS network charges for DG that are more consistent with the charges faced by grid-connected generators. The costing model which underpins CDCM is based on a demand-only network, which assumes that all units flow from Grid Supply Point (GSP) to demand. There is thus an assumption that DG is always likely to be of value and that only demand drives costs. It is easy to see that in an export constrained area, adding any extra DG will increase the effect of the constraint.
* As for demand, just bringing in a core access entitlement via this review may not be enough; carefully designed charges for use at times of peak local network congestion will also create incentives that, in being responded to, ensure that local networks are efficiently used, with reinforcement only undertaken where it represents the most efficient solution. Large elements of domestic / smaller customers demand have at least the potential for time-shift DSR, should the householder choose to do it.
* The consultation envisages rebalancing DUoS towards capacity-based charges, away from energy-based charges. We agree that real costs in terms of future network capacity costs are driven more by access capacity, than by energy (volumetric) charges. The main driver of network investment/operation is peak utilisation of assets. We agree that these changes towards more capacity-based DUoS charges would complement improvements in the area of access rights.
* We agree also that improving predictability of EHV charges (*e.g. by moving to a zonal approach, a little more like TNUoS*) could improve charge stability and predictability, Today’s EDCM demand charges include a strong locational element which is distinct for every substation, calculated via a bespoke assessment for each user depending on actual prevailing network conditions. These charges are unpredictable due to their complexity and can be quite volatile over time. Such charges do not represent the best sort of signal, so there may be a case for some zonal averaging.
* In undertaking these reforms it will also be important to balance and assess these key considerations against wider policy/social objectives, to ensure overall that reforms support the transition to a low carbon, smart, flexible energy system.

*Question 7: Do you agree that the distribution connection charging boundary should be reviewed, but not the transmission connection boundary? Please provide reasons for your response and, where possible, evidence to support your position.*

* Yes. Under the “shallow-ish” connection charges for DG and new DNO demand sites at present, the cost of reinforcing the local network is being focused on the new party. This may deter them from taking forward their project - meaning that new network capacity isn’t taken forward even if there are other potential new connectees in the area that could have used it. A shallow-ish DNO connection boundary may seem more cost-reflective in theory, but may not always give such optimal overall outcomes in practice as a shallow approach, for this reason.
* Moving to a shallower connection charging boundary at distribution could reduce barriers to entry for those wanting to connect to the distribution network, as it would mean that new connections would no longer bear some reinforcement costs. It would also increase consistency of treatment of DG with transmission-connected generators (to the benefit of DG).

*Question 8: Do you agree that the basis of forward-looking TNUoS charging should be reviewed in targeted areas? If you have views on whether we should review the following specific areas please also provide these:*

1. *Do you agree that forward-looking TNUoS charges for small distributed generation (DG) should be reviewed, as outlined in paragraphs 4.19-4.23?*

Yes, a review could identify ways to improve consistency between generators connecting at different network voltage levels; the matter will need consideration in tandem with whatever changes are made to the recovery of residual charges via the TCR review. Although they are connected at distribution-level, it is true DGs can still impact electrical flows across the transmission network.

*Do you consider that forward-looking TNUoS charges for demand should be reviewed, as outlined in paragraphs 4.24-4.27? Please provide reasons for your response and, where possible, evidence to support your position.*

Yes, these charges should be in scope of the review. The targeted charging review only has in its scope, the recovery of the demand TNUOS residual. Paragraphs 4.24-7 contemplate, by contrast, the possibility of allocating the main demand TNUoS charges based on capacity requirements rather than usage, or fixed time of use windows (similar to the approach to time of use charging under DUoS), or other ideas that could be developed within the review, which might differ from today’s basis of demand TNUoS charging.

*Question 9: Do you agree that a broader review of forward-looking TNUoS charges, or the socialisation of Connect and Manage costs through BSUoS at this time, should not be prioritised for review? Please provide reasons for your response and, where possible, evidence to support your position.*

Yes, we agree that a review of these topics should not be addressed in the SCR.

The general methodology for setting forward-looking TNUoS charges was reviewed relatively recently through Project Transmit and we agree that it should not be reviewed again at present; there is limited total change bandwidth, and the more pressing fundamental review of DUoS and access should take priority.

*Question 10: Do you agree that there would be value in further work in assessing options to make BSUoS more cost-reflective, and if so, that an ESO-led industry taskforce would be the best way to take this forward?*

No, we do not agree that there would be value in this. BSUoS is not currently intended to be cost-reflective, as it is effectively equivalent to a ‘residual’ charge and recovers costs incurred for balancing the system ex-post. In previous reviews of transmission charging and BSUoS more specifically the conclusion has been reached that there is not an effective underlying pricing signal that can be identified as a basis for charging users. This includes work that was as recent as CMP250, where it was concluded that BSUoS should be treated as cost recovery based.

If work were to be progressed however, an ESO-led industry taskforce would be the best option, but we would need clear scope and timescale given the potential for uncertainty and interactions.

*Question 11: What are your views on whether Ofgem or the industry should lead the review of different areas? Please specify which of SCR scope options A-C you favour, or describe your alternative proposal if applicable. Please give reasons for your view.*

We certainly agree that the review of access rights for small users, including households, should fall within the SCR, and the comprehensive review of forward-looking DUoS charging arrangements; the latter goes hand in hand with a review of the distribution connection charging boundary. The definition and choice of access rights for larger users (SCR scope b), and the allocation of those access rights (SCR scope c), will need a lot of work and thought to identify and develop proposals, which might be better undertaken in the industry process; if triggered via the suggested ESO/DNO licence requirement, the timing ought not to be set too tight. This will allow the SCR work to be taken forward with the greatest focus. It cannot really be said that a comprehensive review of forward-looking DUoS, and the matter of access rights for small users and the core entitlement concept, can be described as narrow in scope, or easy to arrive at robust solutions which must work for a long time once in place.

*Question 12: Do you agree with our proposal to launch an ‘Option 1’ SCR for areas of review that we lead on? Please give reasons for your view.*

The Option 1 approach to an SCR code change process (Ofgem directs licensee(s) to raise modification proposals, via a direction at the end of the SCR phase) is the approach taken in the past (for example, TransmiT), and is tried and tested, and probably simplest. We support the proposal. The fact that it maintains the standard industry process once a modification is raised, gives a good chance that industry can contribute relevant expertise, whilst still, through the SCR approach, allowing for Ofgem leadership.

*Question 13: Do you agree with the introduction of a licence condition on the basis described in paragraphs 5.11 and 5.12 and Appendix 5? Why or why not? Do you have any comments on the key elements set out in table 7 of Appendix 5a, or consider there are any other key elements which should be included? Please give reasons for your view.*

The timescales for delivery in section 5 of Appendix 5a, look challenging. Mods would be raised by the licensees by June 2019, and Final Modification Reports submitted to Ofgem by March 2020. This might just be achievable, if the mods are raised in something at least a little more than a skeletal form.

*Question 14: Do you have any comments on the draft wording of the outline licence condition included at Appendix 5b? Please give reasons for your view.*

Appendix 5b, specifying what the licensees would take forward outside the SCR process, again specifies a challenging timeframe (an interim report by June 2019, and a final report with conclusions by March 2020), which may be hard to achieve without curtailing industry debate. The wording on scope, under the different scenarios for the scope of the SCR, seems correct. The flexibility on timing, allowing (para 1.15) for extension by Ofgem of the licence condition’s end time beyond 2021 if needed, seems appropriate.

*Question 15: What are your views on our indicative timelines? Do you foresee any potential challenges to, or implications of, the proposed timelines and how could these be mitigated?*

The risk is of curtailing industry debate during the modification’s workgroup stage, especially as there would be a number of modifications being taken forward in parallel; whilst the DUoS and TNUoS charging and access policy communities do often entail different personnel within organisations, there are a strictly limited number of experts. We do agree that there should be a clear timeline to ensure focus, and accept the timeline prevented. Changes to DUoS will need to be made with sufficient notice for Suppliers (the current 15 months’ notice period must be preserved).

Changes in the connection boundary will need to be able to be incorporated into the RIIO-D2 settlement.

*Question 16: What are your views on our proposals for coordinating and engaging stakeholders in this work?*

The obligation in 5b (1.8 (b) (ii) ) on each licensee to develop its assessment and proposals in consultation with any other persons whose interests are materially affected by the Relevant Arrangements, is worthwhile.

Coordination across work areas will be important, as reforms to access and charging are deeply intertwined – changes to the one may invite or necessitate changes to the other. The need for coordination can also arise where an SCR is in play, yet the ESO and network operators are working on other aspects of charging and access outside the SCR. The CFF’s charging and access task forces are very likely to be able to help if invited to, as may the CFF.